



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

International Journal of Recent Scientific Research
Vol. 8, Issue, 1, pp. 14967-14969, January, 2017

**International Journal of
Recent Scientific
Research**

Research Article

PREVALENCE OF H.I.V. INFECTION RATE AMONG THE PERSONS ATTENDING INTEGRATED COUNSELLING TESTING CENTER (ICTC) OF G.B. PANTH TEACHING HOSPITAL, TRIPURA STATE, NORTH EAST REGION. -13 YEARS ICTC BASED STUDY

Arun Ghosh*

Department of Microbiology & Medical Superintendent, Agartala Government Medical College & G.B.Panth Hospital, Tripura Health services

ARTICLE INFO

Article History:

Received 17th October, 2016
Received in revised form 12th
November, 2016
Accepted 04th December, 2016
Published online 28th January, 2017

Key Words:

ICTC, Tripura state, prevalence rate of HIV infection.

ABSTRACT

Back ground- The study was conducted in the ICTC of state referral G. B. Panth teaching Hospital, under the Department of Microbiology, with the help of Tripura Aids Control Society (TSACS) during the period since inception (1997) to 1999 and 1999 to 2009(31st Dec) to analyze the trends, prevalence rate, of HIV infection. **Objectives -** To study the prevalence rate of HIV infection among the persons attending in the ICTC centre along with occupational distribution, route of transmission and also to identify associated risk group. **Results -** Blood samples of 37,452 were collected only after pre-test counselling and get signed by person concerned as per National Aides Control organization (NACO) guidelines. Reports were dispatched after post test counselling with strict confidentiality. Out of total 37,452 blood samples tested during the period from 1997 to 2009(31st Dec), out of that 421(8.89%) cases were positive. Among the all seropositive cases 307(73%) were male and 114(27%) were female respectively. Male to female ratio in HIV seropositive individuals were 2.69;1. The District wise distribution of HIV seropositive cases of Tripura state were maximum in West District 239(56.76%) following North District 99(23.51%) of the state. Heterosexual route of transmission were found 396(94%) among the total positive cases. As per occupation concern, the defense personnel 158(37.52%) were most dominant group among all HIV positive cases. Maximum Seropositivity of HIV infections were prevalent among 30 -39 years age groups.

Copyright © Arun Ghosh., 2017, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Human Immunodeficiency virus (HIV) infections are being reported the world with 33 million affected and estimated 2.5 million people in India at the end of 2006. [1] Human immunodeficiency virus HIV/Acquired immunodeficiency Syndrome (AIDS) devastated individuals, families, and communities as high prevalence area, defined by a rate of HIV positivity is more than 1% among women visiting prenatal clinics and rate more than 5 % for STD. Moderate prevalence is less than 1 % and less than 5 %, was found in Gujrat, Goa, and Union Territory of Pondicherry.[2]. National Aids Control programme was launched in the 1990 with the aim to reduce HIV infection rates. Integrated Counseling and Testing Center (ICTC) is key component for detections of HIV infection, preventions, and to monitor and treatment by anti retro viral therapy (ART). The epidemiologic data for India (year 2006) estimated 5.7 India number of Infected persons ranges from 3.4 million to 9.4 million is far less precise than South Africa (4.9 million to 6.1 million) [2]. In India HIV infection is based primarily on anonymous testing data from public clinics,

antenatal care, patient with high risk groups or with sexually transmitted infections.[3]. National AIDS control organization (NACO) and Ministry of Health and family welfare, Govt of India 2005 declared six states Andhrapradesh, Maharashtra, Karnataka, Manipur, Nagaland and Tamilnadu as risk zone. The integrated counseling and testing Center (ICTC) is an entry point care which provides the sero test of HIV infection in confidential manner [4] the data generated in ICTC may provide to informations regarding the status of HIV in Tripura [4]. The present retrospective study was conducted since inception on attendees of ICTC under the department of Microbiology. India is still with professional donors (paid), contaminated blood and blood products account for 2% HIV infections [5]. Government of India estimates that about 2.40 million Indians are living with HIV (1.93 – 3.04 million) with adult prevalence rate 0.31 % (2009), children less than 15yrs account for 3.5% of all infection while 83 % are in age group 15 -49 years. (July 10, 2012).[6] An individual who is infected with immunodeficiency virus (HIV) will not develop the acquired immunodeficiency syndrome (AIDS) immediately. The immune system of the individual will wage a consistent

*Corresponding author: **Arun Ghosh**

Department of Microbiology & Medical Superintendent, Agartala Government Medical College & G.B.Panth Hospital, Tripura Health services

and prolonged war with the virus, right from the day of infection, delaying the onset of AIDS by many years. The time lag between infection and manifestation of signs and symptoms of AIDS is approximately 5-7 years. It is important that an individual who is HIV infected is aware of his/her status as otherwise he/she could unknowingly transmit the virus to others. The only way to diagnose the presence of HIV and get timely treatment is through or blood test. HIV counseling and testing services were started India 1997. [4]. There are now more than 4000 counseling and testing centers (ICTCS) which are mainly located at Govt. hospital. As today only 25-30% of the people who are HIV positive in the country are aware of their HIV status. This counseling and testing services are important component of prevention and control of HIV/AIDS in the country. Availing ICTC, people can access accurate information about HIV prevention and care in supportive and confidential environment. 75000 peoples who are HIV positive are under anti-retroviral treatment (ART) and receive free treatment for HIV/AIDS. Usually sex workers and their clients, men who have sex with men (MSM), injecting drug users, truckers, migrants. Children of men who is prone to risk behaviors are ensured to HIV counseling and testing services. ICTC of present study is fixed facility ICTC ie, 'stand alone' ICTC having full time counselor and laboratory technician. ICTC is under the support of state Aids control society (SACS). ICTC of present study maintain effective coordination with STD, RCH, TB programmes. Manipur state with hardly 0.2% of Indian total population is contributing nearly 8% of Indias total HIV positive cases. [4]

MATERIAL AND METHODS

The study included all attendees of ICTC from 1997 to 2009(31st Dec). All the essential information and counseling done by counselor ICTC which includes age, sex, occupation, place of residence, history of contact and risk behavior, blood transfusion, drug abuse etc. 5 ml blood samples were collected from each aseptically after pretest counseling and consent. Testing of serum was done as per NACO guidelines, annexure 11 testing algorithm. For the purpose of diagnosis three rapid HIV test kits on different antigen/principle were used and reported as Positive or Negative. In case of Intermediate the sample was subjected for western blot or PCR if available. Rapid tests are popular method because it provides result within 30 minutes of the test and detect > 99.5 % HIV infected individuals and give false positive results in < 2%, therefore rapid tests are recommended for use in an ICTC.

RESULTS

Total 37,452 blood samples were tested during the period from 1997 – 2009(31st Dec). Out of that 421(8.89%) samples were positive. 307(73%) and 114(27%) were males and females respectively among the total positive cases. The male to female ratio of HIV seropositive individuals were 2.69 : 1. (Table -1).

Table- 1 Gender Distribution of HIV infected persons.

Male	%	Female	%	Total	Male to Female ratio.
307	73	114	27	421	2.69 :1

Maximum seropositivity were found in the age group 30-39 years, 221(52.49%), following 20-29 yrs 165 (39.19%). (Table- 2).

Table 2 shows Age Distribution am Positive Cases

Total	<19 yrs	20-29 yrs	29-40 yrs	40-49 yrs	50yrs & above
421	10 (2.37%)	165 (39.20%)	221 (52.49%)	25 (5.93%)	-

District wise distribution of HIV sero positive cases were maximum in West District 239(56.76%), North district 99(23.51%), south district 52 (12%) and Dhalai 39(7%) respectively. (Table- 3)

Table 3 District wise distribution of HIV infected persons in Tripura state

Total	West District	%	South District	%	Dhalai District	%	North District	%
421	239	56.76	52	12.35	31	7.36	99	23.51

The mode of transmission is mainly heterosexual 396(94%), others like antennal 4(1%), IDU 4(1%) and others 17(4%) respectively. (Table- 4)

Table- 4 Route of Transmission of HIV infected Cases.

Route of Transmission	No of Cases	%	Total No-
Hetero Sexual	396	94	421
IDU	4	01	
Mother to child	4	01	
Others (Non specified)	17	4.03	

The occupational distribution in this study, maximum positivity of HIV infection was more prevalent among defense personnel 158(37.52%) follows house wife 86 (20.42%), Truckers 54(12.82%), migrant 41(9.73%) children 15(3.56%).FSW 6 (1.42%),IDU 5(1.18%) and others 56(13.30%) respectively. (Table-5)

Table 5 Shows occupational distribution of HIV infected patients

Defence	Migrant	Truckers	House wife	Children	FSW	IDU	others	Total
158	41	54	86	15	6	5	56	421
(37.52%)	(9.73%)	(12.82%)	(20.42%)	(3.56%)	(1.42%)	(1.18%)	(13.30%)	

The trends of HIV infections were prevailing in the state from inception of ICTC in 1997, and blood samples were tested as shown in figure 5 are 0.20 % (15/7418), .51%(5/963), 1.55% (13/835), 1.58% (15/948), 3.11% (32/1028), 1.98% (15/754), 4.22% (18/426), 2.68%(34/1264), 4.44% (50/1126), 2.06% (69/3341) in the year 1997, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 respectively. (Table-6)

Table -6 shows Year wise trends of HIV infection in the state since inception (1997-2009)

Year	Sample Tested	Sample positive	Percentage
1997-1999	7418	15	.20
2000	963	05	.51
2001	835	13	1.55
2002	948	15	1.58
2003	1028	32	3.11
2004	754	15	1.98
2005	426	18	4.22
2006	1264	34	2.68
2007	1126	50	4.44
2008	3341	69	2.06
2009	19,349	155	.80

DISCUSSION

In this 13 years hospital based study of HIV infection in persons attending ICTC at G.B. Hospital Agartala, shows the overall prevalence rate of Tripura State is 8.89%. This finding is coming close to the study of [madkar et al.](#) They observed, out of 11,380 samples tested 1286(11.3%) were positive. [6]. The overall positivity of HIV infection rate was also similar with all India seropositivity of 9.6% among total ICTC clients [7]. [Das et al](#) 22,897 samples were tested in ICTC where 1732 (7.5%) were sero positive, giving a prevalence rate 7.5% which is coming close with the present study [8]. In contrast [sawaithul VK et al](#) reported 31.2% seropositivity among their clients [9]. In different VCTCs of Maharashtra, HIV prevalence ranges from 10.2% to 38.1% in persons attending VCTC [10]. The range of rate of HIV infection in Maharashtra is co relating and also non correlating with this study. In contrast prevalence of HIV infection in Jodhpur, Rajasthan 22.0% [11].

CONCLUSION

- In this study over all prevalence rate of HIV infection in persons attending ICTC in Tripura state was found to be 8.89%.
- Persons belongs to age group 30 -40 yrs were more at risk group to develop HIV infection.
- Heterosexuality was found predominant route of transmission. needs to stress more on

Acknowledgement

I express my deep sense of gratitude to Dr. Ashok Roy, Project Director, NACO, Tripura state for his innovative cooperation and permission.

References

1. Chandrasekharan P, Dalla betta G, Loo V, Rao S, Gaule H, Alexander A – Containing HIV/ AIDS in India – *Lancet. Infect. Dis* 2006 ; 6 ;508
2. Joardar GK, Sarkar A, chatterjee, Bhattacharya RN, sarkar S, Banerjee P – Profiles of attendees in the voluntary counseling and testing center of North Bengal Medical College in Darjeeling District of West Bengal – *Ind J Comm Med.* – 2006: -6; 31-43.
3. Vivek M Arora, Soma Roy and Ashoke k Bangotra – *Indian Journal of Sexually Transmitted Diseases and AIDS* -2009; july –Dec ;30(2) ;121 -122.
4. National AIDS control organization, Ministry of Health and family Welfare, Government of India. (NACO).
5. Gomes LA, Somu G, Rinkoo AV, Vinay GM- Utilisation of integrated Counseling and testing Centre (ICTC),- A comparative study between tertiary care teaching hospital and a Government district hospital in Karnataka - *Indian Journal of Public Health*, 2007 – Jan – March; 51(1); 39 -40.
6. Madkar S. S., Nilekar S.I, Venkudre A.J. – Prevalence of HIV infection among persons attending integrated counseling and testing center, Ambajogai. – *National Journal of Community Medicine* - 2011 –vol -2 issue 2nd july – Septt.
7. National Aids control Programme CMIS Bulletin, Govt of India; *Ministry of Health and family welfare*; 2007; ICTC;PP – 13
8. M.Dash, S.Padhi, I mohanty, P. Panda, B. Parida, MK Sahoo - HIV Counselling and testing in a tertiary care hospital im Ganjam district, odisha, *JPGM* –vol 59, issue 2 pp 110-114.
9. V.K. Sawaithul, P.M. Ukey, S.K. Bobhate- Prevalence of HIV infection among persons
10. Attending Voluntary Counseling and Testing Centre, Nagpur – *Biomedical Research* 2006; 17(3); 201- 204
11. Maharashtra State AIDS Control Society (MSACS), Mumbai, VCTC performance report of First Quarter & Second Quarter: 2004; 5-8.
12. Mehta NM, Bais C, Purohit A, Haag A, Mora C, Harsh J *et al* – Prevalence of HIV infection in Counseling and Testing Centre – Jodhpur India; *Int. conference AIDS*; 204 –abstract no MOPeC 3527.

How to cite this article:

Arun Ghosh. 2017, Prevalence of H.I.V. Infection Rate Among the Persons Attending Integrated Counselling Testing Center (ictc) of G.B. Panth Teaching Hospital, Tripura state, North east Region. -13 Years Ictc Based Study. *Int J Recent Sci Res.* 8(1), pp. 14967-14969.